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| PPLICATION NO.                | FILING DATE     | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|-------------------------------|-----------------|----------------------|-------------------------|------------------|
| 10/726,512                    | 12/04/2003      | Tapesh Yadav         | 037768-0107             | 7182             |
| 22428                         | 7590 08/14/2006 |                      | EXAMINER                |                  |
| FOLEY AND LARDNER LLP         |                 |                      | VANOY, TIMOTHY C        |                  |
| SUITE 500<br>3000 K STREET NW |                 |                      | ART UNIT                | PAPER NUMBER     |
| WASHINGTON, DC 20007          |                 |                      | 1754                    |                  |
|                               |                 |                      | DATE MAILED: 08/14/2006 |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

| · ·  |  |  |  |  |  |
|--|--|--|--|--|--|
|  | Application No.  | Applicant(s)   |  |  |  |
|  | 10/726,512   | YADAV, TAPESH  |  |  |  |
| Office Action Summary  | Examiner   | Art Unit   |  |  |  |
|  | Timothy C. Vanoy   | 1754   |  |  |  |
| The MAILING DATE of this communication app   | <u> </u>   |  |  |  |  |
| Period for Reply   |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DATE of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  If NO period for reply is specified above, the maximum statutory period varieties to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATI 36(a). In no event, however, may a reply be will apply and will expire SIX (6) MONTHS for the application to become ABANDO | ON. be timely filed  from the mailing date of this communication.  DNED (35 U.S.C. § 133). |  |  |  |
| Status   |  |  |  |  |  |
| 1) Responsive to communication(s) filed on 24 Ju   | <i>ıly</i> 2006.   |  |  |  |  |
| 2a) ☐ This action is <b>FINAL</b> . 2b) ☑ This   | action is non-final.   |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is   |  |  |  |  |  |
| closed in accordance with the practice under E   | Ex parte Quayle, 1935 C.D. 11,   | 453 O.G. 213.  |  |  |  |
| Disposition of Claims  |  |  |  |  |  |
| 4) Claim(s) 1-22 is/are pending in the application.  |  |  |  |  |  |
| 4a) Of the above claim(s) is/are withdraw  | wn from consideration.   |  |  |  |  |
| 5) Claim(s) is/are allowed.  |  |  |  |  |  |
| 6)⊠ Claim(s) <u>1-22</u> is/are rejected.  |  |  |  |  |  |
| 7) Claim(s) is/are objected to.  |  |  |  |  |  |
| 8) Claim(s) are subject to restriction and/o   | r election requirement.  |  |  |  |  |
| Application Papers   |  |  |  |  |  |
| 9) The specification is objected to by the Examine   | er.  |  |  |  |  |
| 10)⊠ The drawing(s) filed on <u>04 December 2003</u> is/a  | ire: a)⊠ accepted or b)□ obj   | ected to by the Examiner.  |  |  |  |
| Applicant may not request that any objection to the  | drawing(s) be held in abeyance.  | See 37 CFR 1.85(a).  |  |  |  |
| Replacement drawing sheet(s) including the correct   |  |  |  |  |  |
| 11) ☐ The oath or declaration is objected to by the Ex   | caminer. Note the attached Off   | ice Action or form PTO-152.  |  |  |  |
| Priority under 35 U.S.C. § 119   |  |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign  | priority under 35 U.S.C. § 119   | (a)-(d) or (f).  |  |  |  |
| a) ☐ All b) ☐ Some * c) ☐ None of:   |  |  |  |  |  |
| 1. Certified copies of the priority document   |  |  |  |  |  |
| 2. Certified copies of the priority document   |  |  |  |  |  |
| <ol> <li>Copies of the certified copies of the prior</li> <li>application from the International Bureau</li> </ol>   | •  | eived in this National Stage   |  |  |  |
| * See the attached detailed Office action for a list   | * **   | rived  |  |  |  |
| 555 the attached detailed office action for a list   | a. a.o common depicts flot rece  |  |  |  |  |
|  |  |  |  |  |  |
| Attachment(s)  |  |  |  |  |  |
| 1) Notice of References Cited (PTO-892)  | 4) Interview Summ  |  |  |  |  |
| <ol> <li>Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)</li> </ol>  | Paper No(s)/Ma 5) Notice of Inform   | il Date<br>al Patent Application (PTO-152)   |  |  |  |
| Paper No(s)/Mail Date  | 6) Other:  | •  |  |  |  |

## **DETAILED ACTION**

## Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Claim 22 does not particularly point out and distinctly set forth what an "optic" is.

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-22 are rejected under 35 U.S.C. 102(b) as being anticipated by U. S. Patent Application Publication US 2002/0176987 A1 to Yadav et al.

Paragraph no. 0097 discloses a solid state reaction between nanoscale powders of a material and at least one of its components by heating the combination to a temperature that completes the solid state reaction. The material may be metallic. Paragraph no. 0109 sets forth that the metals may be f group elements (i. e. rare earth elements). Paragraph no. 0006 seems to suggest that the product is nano-sized, and the product may be used in catalysts, photonic devices, sensors, etc.

Application/Control Number: 10/726,512 Page 3

Art Unit: 1754

Response to Arguments

Applicant's arguments submitted with the amendment filed on July 24, 2006 with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

The following references are made of record:

U. S. Patent 6,513,362 B1 disclosing the use of rare earth oxides in sensors (please see col. 4 lns. 13 and 28);

U. S. Patent 6,627,114 B2 disclosing rare earth oxide type phosphors (please see the title), and

U. S. Patent 6,290,975 B1 disclosing trivalent rare earth ion-containing aluminate phosphors (please see the title).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy C. Vanoy whose telephone number is 571-272-8158. The examiner can normally be reached on Mon-Fri 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/726,512 Page 4

Art Unit: 1754

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Timothy C Vanoy Timothy C Vanoy Primary Examiner Art Unit 1754

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